

INDIVIDUAL PROPERTY/DISTRICT
MARYLAND HISTORICAL TRUST
INTERNAL NR-ELIGIBILITY REVIEW FORM

Property/District Name: BARC Potable Water System Survey Number: PG-61-23

Project: Proposed Demolition of Well Houses Agency: F/USDA

Site visit by MHT Staff: X no yes Name Date

Eligibility recommended Eligibility **not** recommended X

Criteria: A B C D Considerations: A B C D E F G None

Justification for decision: (Use continuation sheet if necessary and attach map)
The Beltsville Agricultural Research Center (BARC) water system consists of 10 well houses, 5 elevated storage tanks, underground reservoir, and treatment plant. Constructed from 1934-1940, much of the system has been abandoned. Robinson and Associates supported their determination of eligibility adequately with archival research and photographic documentation. The report indicates that the gravity water system is typical of the period, provided only potable water for BARC and not field irrigation, and has been sufficiently altered to reduce its integrity. This office concurred that the water system was not eligible for the National Register.

Documentation on the property/district is presented in: Maryland Inventory Form

BARC Water System compliance file

Prepared by: Robinson & Associates

Lauren Bowlin 1/2/98
Reviewer, Office of Preservation Services Date

NR program concurrence: X yes no not applicable

B. Kuntz 3/22/98 (nec)
Reviewer, NR program Date

mg

MARYLAND COMPREHENSIVE HISTORIC PRESERVATION PLAN DATA - HISTORIC CONTEXT

I. Geographic Region:

☐ Eastern Shore (all Eastern Shore counties, and Cecil)
☒ Western Shore (Anne Arundel, Calvert, Charles,
Prince George's and St. Mary's)
☐ Piedmont (Baltimore City, Baltimore, Carroll,
Frederick, Harford, Howard, Montgomery)
☐ Western Maryland (Allegany, Garrett and Washington)

II. Chronological/Developmental Periods:

☐ Paleo-Indian 10000-7500 B.C.
☐ Early Archaic 7500-6000 B.C.
☐ Middle Archaic 6000-4000 B.C.
☐ Late Archaic 4000-2000 B.C.
☐ Early Woodland 2000-500 B.C.
☐ Middle Woodland 500 B.C. - A.D. 900
☐ Late Woodland/Archaic A.D. 900-1600
☐ Contact and Settlement A.D. 1570-1750
☐ Rural Agrarian Intensification A.D. 1680-1815
☐ Agricultural-Industrial Transition A.D. 1815-1870
☐ Industrial/Urban Dominance A.D. 1870-1930
☒ Modern Period A.D. 1930-Present
☐ Unknown Period (☐ prehistoric ☐ historic)

III. Prehistoric Period Themes:

☐ Subsistence
☐ Settlement
☐ Political
☐ Demographic
☐ Religion
☐ Technology
☐ Environmental Adaptation

IV. Historic Period Themes:

☐ Agriculture
☐ Architecture, Landscape Architecture,
and Community Planning
☒ Economic (Commercial and Industrial)
☐ Government/Law
☐ Military
☐ Religion
☐ Social/Educational/Cultural
☐ Transportation

V. Resource Type:

Category: buildings and structuresHistoric Environment: ruralHistoric Function(s) and Use(s): water storage tanks, well houses

Known Design Source: _____

Maryland Historical Trust
State Historic Sites Inventory Form
Maryland Inventory of Historic Properties

Survey No. PG 61-23

Magi No.

DOE __yes __no

1. Name

Beltsville Agricultural Research Center Water System

Historic Name

Building B 157A, B 240, B 244, B287, B305, B313, B 314, B 116B, B1183, B 300, Elevated Reservoirs # 1,2, 3, 4, 5, Underground Reservoir # 1, and Water Treatment Plant B 310.

Common Name and Building Number

2. Location

Beltsville Agricultural Research Center Central Farm

Street and Number

Beltsville

City, Town

Maryland

State

Congressional District

Prince George's

County

3. Classification

Category

☐ District

☐ Building(s)

☒ Structure(s)

☐ Site

☐ Object

Ownership

☒ Public

☐ Private

☐ Both

Public Acquisition

☐ In Process

☐ Being Considered

☐ Not Applicable

Status

☐ Occupied

☐ Unoccupied

☐ Work in Progress

Accessible

☒ Yes: Restricted

☐ Yes: Unrestricted

☐ No

Present use

☐ Agriculture

☐ Commercial

☐ Educational

☐ Entertainment

☐ Government

☐ Industrial

☐ Military

☐ Museum

☐ Park

☐ Private Residence

☐ Religious

☐ Scientific

☐ Transportation

☐ Other: Water

4. Owner of Property

U.S. Department of Agriculture

Name

10300 Baltimore Avenue

Street & Number

Beltsville

City, Town

Maryland 20705

State and Zip Code

301-504-5187

Telephone No. :

5. Location of Legal Description

Courthouse, Registry of Deeds, etc.

Liber# _____ Folio# _____

Street & Number

City, Town

State and Zip Code

6. Representation in Existing Historic Survey

Yes ☒ No

Title

Date

☒ Federal ☐ State ☐ County ☐ Local

Depository for Survey Records

City, Town

State and Zip Code

7. Description

Survey No. PG 61-23

Condition

☐ Excellent

☐ Good

☒ Fair

☐ Deteriorated

☐ Ruins

☐ Unexposed

☐ Unaltered

☒ Altered

☐ Original Site

☐ Moved

SEE CONTINUATION SHEETS

Overview

The Beltsville Agricultural Research Center (BARC) Water System includes structures located throughout the Beltsville campus. The entire system is composed of 10 well houses, 5 elevated reservoirs (water towers), an underground reservoir, and a water treatment plant. The majority of the structures included in this study were first erected over a six-year period, from 1934 to 1940. The structures do not appear to represent any one intact and/or planned early system. Instead, multiple independent elements provided potable water for buildings in their immediate environs: These independent elements consisted of a tower, located near a well, and the two together served as a water system for a portion of the BARC site. These early, independent water systems involved no filtration. Later, after the water treatment plant was constructed, earlier towers and wells were tied into the new system and new elements were added to the system. Other alterations to the structures and system as a whole, including the removal of the wells and pumps from the interior of the majority of the well houses, are detailed below. Much of the original water system is abandoned and/or not operational. Some well houses are now used to house electrical components and water pipes.

Building Descriptions

Well House B 157A (Well #11)

Well House B 157A is a small, flat-roofed, concrete structure located south of the intersection of Powder Mill Road and South Dairy Road in the Dairy Area of BARC. Constructed in 1977, this well house is the most recent well house reviewed for this study. A portion of this building housed all electrical equipment during the time milk and cheese were produced here. The main facade holds plain wooden doors, and a recessed belt course wraps the structure. This building is attached to Building 157, which lies to its north. Small windows with concrete sills are located on the east and west sides of the building. This well house is no longer a part of the water system.

Well House B 240 (Well #5)

Well House B 240 is similar to B 157A in its concrete construction. Constructed in 1938, it was roughly doubled in size in 1977. Located southeast of Building 254 in the Poultry Area, its closest major road is Poultry Road. One side of this well house appears to have had stucco applied to its facade, while the other sides show concrete block construction. This well house appears to be divided into two distinct sections. The original section rests solidly on a concrete base and has a flat metal roof with turned edges and a wooden door on the main facade and a six-over-six window in the rear. The other section, a 1977 addition/extension, sits directly on the ground, with no apparent subfloor. This addition maintains the same roof line as the original structure on the front, but in the back, a slight drop illustrates the break between the two sections before it returns to its previous height. The addition has a window on the rear side which consists of two-over-two horizontal panes of glass with a small brick sill. This well house is abandoned.

Well House B 244 (Well #6)

This structure is located east of Poultry Road and north of Powder Mill Road. The construction dates for this well house, 1940 and 1974, are similar to those dates of Well House B 240, mentioned above. Likewise, this structure is divided into two sections, a smaller original portion and a larger projection which has the later date of construction. The original section is set on a brick foundation and is of possibly concrete block construction with a stucco finish. The original structure has a flat metal roof with turned edges and a small, wooden panel door on the main facade, and a six-over-six window with a brick sill in the rear. The 1974 addition is of the same concrete construction with few differences: the flat metal roof is raised on a wooden (2"x 4" board) cornice and the addition is set on a concrete base.

Well House B 287 (Well #8)

Erected in 1934, Well House B 287 is located just off the Baltimore-Washington Parkway. This well house has a front gable roof of moderate pitch with a slight eave overhang, and is covered in plain asbestos shingles. The front facade has a small vertical board door with three small, rectangular, windows. The window next to the door is almost the same size as the door, and is set in a wooden frame with six-over-one panes of glass. The plain concrete structure is set into the small hillside located in the rear of the building. From the rear elevation, the well house projects only approximately three feet above grade. A square (2'x2') cap is visible from this elevation; located on top of the roof, once used as access to the pumps inside. The pump is now located outside the structure in a fence enclosure.

Well House B 305 (Well #2)

Well house B 305 is a nicely detailed, simple, brick structure erected in 1938. Located northeast of the intersection of Powder Mill and Research Roads, it has a moderately pitched, hipped pyramidal roof with brick coping in the eave. The roof is sheathed in asbestos shingles and is capped with a box-like opening which was used to access the pumps inside, similar to B 287. Each corner joint on the roof is covered with a curved shingle which acts as flashing, protecting the joint from water damage. The brick, segmentally arched windows have brick sills and nine-over-six glass panes. The wooden door is set in a wooden frame with a segmental arch in the brickwork above the door. The entire structure is set on a brick base. The brick is laid in five-course American bond and appears to be in fairly good condition.

Well House B 313 (Well #4)

Just west of Entomology Road and north of Powder Mill Road, Well House B 313 was erected in 1938, utilizing the same materials and design as B 305. This well house is set on a concrete base and constructed of brick, but with one interesting difference from B 305: the brick was laid in a garden wall variant with five stretcher courses to every one header course. The moderately pitched pyramidal roof also is slightly different, with the cap for pump access is located on the side of the roof, and not at its peak. The sash window has six-over-six panes of glass set in a wood frame. The simple wood panel door is likewise set in a wooden frame, although minus the segmental arch above the door as evidenced in B 305. Brick coping in the eave and the same curved shingle flashing, as shown in B 305, are also

used here. This former well house now accommodates electrical components.

Well House B 314 (Well #3)

Well House B 314 is located just off the access road, which branches off Entomology Road as it forks off to the west. This well house is an exact duplicate of Well House B 313; it features the same brick and bonding pattern, concrete base, asbestos shingle roof, access cap on side, and wooden door and window. Other than location, there are no distinguishing features to differentiate between Well House B 313 and B 314. These well houses also share the same construction date (1938.)

Well House B 1168 (Well #9)

Located in the Animal Parasitology Unit off Research Road, Well House B 1168 was part of the well construction that took place during 1938. This well house is set on a concrete floor with a side gabled roof and has a common wood paneled door in a wooden frame. The six-over-six window has a brick sill (perhaps a vestige of its original design) and this too is set in a wooden frame. The wooden gable has been painted and appears to be in a serious state of peeling and rotting wood. The pump access is located on the rear side of the roof.

Well House B 1183 (Well #10)

Well house B 1183 is also located on the grounds of the Animal Parasitology Unit. It appears that this building could have initially been of the same brick style as B 305, 313 and 314, but at some later date was altered to more closely resemble its neighbors. This alteration included applying stucco to the previous brick facades and also using sheets of metal roofing. The hipped pyramidal roof is still encased in black shingles, but the entire building has been covered in stucco. Again, the brick sill of the window is the only clue that a full brick structure may have once existed. The original concrete base is unchanged as are the wooden frames for the door and six-over-six window. The pump access cap is clothed in aluminum and rests at the top of the peaked roof. This well house dates to 1938.

Well House B 300 (Well #7)

Sited near the intersection of Beaver Dam and Research Roads, this well house was built in a simple, square, design with a flat roof and it rests on a solid concrete base. It was constructed in 1939. Its metal roof is similar to that on Well House B 240 and B 244: a flat metal roof with turned edges. The plain wooden door is set in a wooden frame and there are no window openings. This structure appears to be of poured concrete, with no refinements or decoration. It is abandoned.

Elevated Reservoirs (Water Towers) #1, 2, 3, 4, 5

The Elevated Reservoirs are located throughout the BARC campus. Elevated Reservoir #1 (Building 453) is located north of Building 426. Elevated Reservoir #2 (Building 286) is located south of Beaver Dam Road and west of the Baltimore-Washington Parkway. Elevated Reservoir #3 (Building 316) is located

northwest of Building 308, elevated Reservoir #4 (Building 603) is located on the Hayden Farm tract and Elevated Reservoir #5 (Building 1006) is located in the Animal Parasitology Unit.

Elevated Reservoirs # 1, 2, 3, 4, and 5 exhibit close similarities in their configuration. All are elevated water towers constructed of steel and raised on four iron supports with a central pipe beneath the tank and an overflow pipe. Reservoirs # 2, 3, 4, and 5 are variations of an ellipsoidal shape with slightly peaked roofs rising to a small ball finial. All four of these water towers were erected between 1935 and 1940. Elevated Reservoir # 1 was constructed in 1966 and its shape differs more substantially from those mentioned previously. Capacity of the Elevated Reservoirs varies from 25,000 gallons (Elevated Reservoir #2) to 150,000 ("Center Tower" #3) to 250,000 (Elevated Reservoir #1). The majority of the structures are in poor repair.

Underground Reservoir

The underground reservoir, located south of Building 200, was a simple concrete vault constructed in 1938 and designed to hold 100,000 gallons of water. It more closely resembles an underground concrete tank as opposed to an authentic underground aquifer. It is abandoned. [No photograph can be provided.]

Water Treatment Facility (Building 310)

The water treatment facility was originally constructed in 1946. Later additions, during the 1960s greatly enlarged the facility, obscuring its original features. The original, utilitarian building exhibited some International style characteristics by its flat roof, windows flush with the outer wall, asymmetrical facades and minimal ornament.

Building 310 is located west of Entomology Road in the Central Farm. It is entirely constructed of brick with flat faces. Later additions were constructed of concrete block. The flat roof rests on concrete coping, with no ornament or any other item of visual interest. All windows have brick sills and are unique in the number and shape of the window. Some windows are tall and narrow with two square panes across and seven down. It appears that in each window the row of panes set on the brick sill are immovable, while the two rows of panes just above open outwards, typical of an awning window.

The original north facade had a distinct, International style appearance with six pairs of ribbon windows running along the cornice, just below a solid line of concrete coping. These windows are three over three in a rectangular shape, which also opened from the top as an awning window. The plain wooden door was flanked by two large windows with nine panes of glass set on a brick sill. The eastern portion of this original design has been altered by an addition which has removed all evidence of the former appearance. The original windows on this facade have been replaced with two fairly modern, 15-pane metal windows.

The original double garage door on the west facade has been replaced by a common roll-up garage door.

Maryland Historical Trust
State Historic Sites Inventory Form
Continuation Sheet. Section 7: Description
BARC Water System
Beltsville, Maryland

Section 7 Page 5

The trash access door on the same building face (raised several feet above grade) has likewise been replaced by a more modern door.

The water treatment facility is currently operational, as water is drawn into the building from the wells for treatment. It is then injected with chlorine to oxidize the iron, and sent through an aeration system to blow carbon dioxide and volatiles (e.g. radon) out into the atmosphere. It is then sent through a channel which adds soda ash to raise the Ph level and reduces corrosiveness. The plant has a 40,000 gallon reservoir underneath it. An electronic control system controls the pumps. The water is pumped through pressure filters to a distribution system to buildings and water towers at BARC.

8. Significance

Survey No. PG 61-23

Period	Areas of Significance			
<input type="checkbox"/> Prehistoric	<input type="checkbox"/> Archeology-Prehistoric	<input type="checkbox"/> Community Planning	<input type="checkbox"/> Landscape Architecture	<input type="checkbox"/> Religion
<input type="checkbox"/> 1400-1499	<input type="checkbox"/> Archeology-Historic	<input type="checkbox"/> Conservation	<input type="checkbox"/> Law	<input type="checkbox"/> Science
<input type="checkbox"/> 1500-1599	<input checked="" type="checkbox"/> Agriculture	<input type="checkbox"/> Economics	<input type="checkbox"/> Literature	<input type="checkbox"/> Sculpture
<input type="checkbox"/> 1600-1699	<input type="checkbox"/> Architecture	<input type="checkbox"/> Education	<input type="checkbox"/> Military	<input type="checkbox"/> Social/Humanitarian
<input type="checkbox"/> 1700-1799	<input type="checkbox"/> Art	<input type="checkbox"/> Engineering	<input type="checkbox"/> Music	<input type="checkbox"/> Theater
<input type="checkbox"/> 1800-1899	<input type="checkbox"/> Commerce	<input type="checkbox"/> Exploration/Settlement	<input type="checkbox"/> Philosophy	<input type="checkbox"/> Transportation
<input checked="" type="checkbox"/> 1900-	<input type="checkbox"/> Communications	<input type="checkbox"/> Industry	<input checked="" type="checkbox"/> Politics/Government	<input type="checkbox"/> Other (specify)
		<input type="checkbox"/> Invention		

Specific Dates	Architect				Builder		Area
Applicable Criteria:	<input type="checkbox"/> A	<input type="checkbox"/> B	<input type="checkbox"/> C	<input type="checkbox"/> D			
Applicable Exception	<input type="checkbox"/> A	<input type="checkbox"/> B	<input type="checkbox"/> C	<input type="checkbox"/> D	<input type="checkbox"/> E	<input type="checkbox"/> F	<input type="checkbox"/> G
Level of Significance	<input type="checkbox"/> National		<input type="checkbox"/> State		<input type="checkbox"/> Local		

SEE CONTINUATION SHEETS

Maryland Historical Trust
State Historic Sites Inventory Form
Continuation Sheet. Section 8: Significance
BARC Water System
Beltsville, Maryland

Section 8 Page 1

Historic Context

Geographical Organization: Western Shore

Chronological/Developmental Periods: Modern Period

Prehistoric/Historic Period Theme (s): Agriculture

Resource Type:

Category: Buildings

Historic Environment: Rural

Historic Function (s) and Use (s): Provision of Potable Water

Known Design Source: Unknown

Overview

The Beltsville Agricultural Research Center is one of the largest research facilities of the Agricultural Research Service (ARS), the main research agency of the U.S. Department of Agriculture. Comprised of 6,612 acres, this site has been used for agricultural research since 1910. The Center cuts across Prince George's County, approximately ten miles northeast of Washington, D.C. and one mile north of Greenbelt, Maryland. The Center's rural character consists mostly of open space and cultivated fields, with approximately 727 structures scattered throughout the site. Most of the built resources are farm outbuildings, but the site also consists of a variety of laboratories, houses, and office buildings.

The potable water system at BARC consists of a loose-knit collection of well houses, elevated reservoirs, one water treatment facility, and one underground reservoir as well as the Washington Suburban Sanitary Commission supplied system at BARC West. Located throughout Central Farm, with one elevated reservoir located on East Farm, these structures date their original construction to 1934-40 with later additions and alterations occurring between 1966 and 1974. The small structures enclosing the shallow wells may have been part of the work completed by members of the Emergency Conservation Corps (later the Civilian Conservation Corps) during that organization's activity at BARC.

Water System Concept

Water systems since their earliest inception have been reliant upon gravity, i.e. the higher elevations at which a supply can be accessed provides enough pressure for the water to be distributed.

The gravity system is still utilized today, and in the early 20th century was the most reliable form of distribution. The gravity system in conjunction with the reservoir system was put into effect at BARC in the early years of the farm. Reservoirs were erected in order to provide an elevated collection point which would facilitate the distribution of the water. Elevated reservoirs also provided a place where water could be stored in anticipation of drought when wells were likely to run dry.

In most water systems, shallow wells were employed, since a shallow well supplied a range between 100,000 and 1,000,000 gallons of water per day and deep wells were expensive to dig.¹ However, at BARC deep wells were needed in order to prevent contamination of the potable water system by pesticides. The wells at BARC supply an average 600,000 gallons of potable water per day and all are bored deep wells. In addition, most of the wells at BARC are located near a water tower, and the reservoir plus gravity system allowed water to be pumped to the reservoir and then on to the facilities serviced by the water system.

In large populated areas, seldom did a single well supply enough water for the entire need. Instead,

¹W.A. Hardenburgh, *Water Supply*, Scranton: International Textbook Company, 1938.

several wells were connected and referred to as a "battery of wells." This system was also implemented at BARC, as indicated by the large number of wells established at the same time (only one well and well house, erected in 1934, had been built prior to the six erected in 1938) and the subsequent linking of these wells after the Treatment Plant was constructed.

Construction of the Potable Water System at BARC/Overview of Key Participants

No data regarding the construction of the earliest water system elements at BARC is available that clarifies its builders or key participants. Multiple participants apparently played a role in the construction of the system -- particularly since the system was implemented over a period of years.

Available documentation provides fragmentary information about how the individual elements of the system were planned and/or implemented.

Only one piece of available documentation, a "Report including a Historical Review and Progress Survey of Projects Under Title II of the 'Work Relief and Public Works Appropriation Act of 1938,'" ² has been located, and it provides fragmentary information specific to the year 1938 (four years after construction of the earliest water system element). Paul Stewart, acting director of BARC construction programs, filed the 1938 report, which listed BARC's current work program as it related to federal funds. Each project was assigned an identification number and the funding amount, as supplied by both the Public Works Administration (PWA) and the Works Progress Administration (WPA) noted. During this time period, three projects were devoted to the water system with a total of \$71,000 appropriated. These projects contemplated the drilling of wells, the purchase and installation of water treatment units in connection with the water system, and the installation of the pipe line and storage facilities.

This work was supervised by Earl Sandford and C.H. Trask, each a member of BARC's supervisory staff. Sandford, the General Superintendent of the Beltsville Research Center supplied support for all construction projects at BARC. C.H. Trask was listed as Chief Resident Engineer at BARC, a position under which he was responsible for the inspection of construction projects at the site. Two other employees, W.A. Elliott and L.R. Hewitt, were on loan from the Farm Security Administration and committed to the management of the water system projects.

It appears that the wells were drilled by private contractors, such as the Snyder Pump and Well Company for Wells # 5 and # 6. One of Stewart's project entries contemplates the "drilling of wells required to improve and extend the existing water system" and describes contractor roles in the drilling of Wells # 3 and # 4. Stewart notes that some of the contractors had already begun clearing the land

²National Archives. Record Group 16, Entry 17, Box 2692 "A Report Including an Historical Review and Progress Survey of Projects Under Title II of the Work Relief and Public Works Appropriation Act of 1938."

and drilling the wells. specifically mentioning Well # 1.³

In 1938, it was first proposed that CCC labor would be used to erect at least one "water and observation tower" on the grounds at BARC. Work was begun in August but halted the next month due to financial considerations and the need for labor on other projects.⁴ In his report, Stewart noted that excavations had begun, but that contracts would be solicited from private companies to complete the work. Therefore, it appears that the water towers were not erected by CCC labor, possibly due to the fact that the construction required skilled steel workers erecting these towers and/or due to costs. Original construction drawings have only been located for Elevated Reservoir #2, built in 1938. This tank and tower was constructed by Pittsburgh-Des Moines Steel Company and closely resembles the water tower extant today.

Another 1938 project, contemplating the installation of pipe line and storage facilities required in connection with the improvement and extension of the water system, notes that "all work will be done by force account and make use of available CCC labor."

It seems possible that the Civilian Conservation Corps (CCC), as part of their overall work completed at BARC, was responsible for the construction of some of the small well house structures. According to one source, the CCC constructed 42 "minor buildings and shelters" at Beltsville's Central Farm.⁵ The CCC also constructed at least one reservoir during this time, possibly Underground Reservoir # 1, located in the hill in front of Building 200. The water treatment building, erected 1946-47, could not have been constructed by the CCC members due to the fact that the Beltsville CCC camps were disbanded by 1942. The names of the architect or construction firm who built the water treatment facility are unknown.

Work on the water system by the CCC was at a lower priority than other ongoing projects at BARC. For example, on a priority list issued in 1936, work on the water system fell third under higher priority items such as building bridges, shelters and numerous fire prevention tasks. However, the water system was at a higher priority than landscaping, building guard rails and soil preparation.

³This private contracting often occurred when CCC camps (see below) arrived in an area to provide assistance, especially when local businesses complained that cheap government labor was undercutting their business.

⁴National Archives, Record Group 16, Entry 17, Box 2692 "A Report Including an Historical Review and Progress Survey of Projects Under Title II of the Work Relief and Public Works Appropriation Act of 1938."

⁵Robinson & Associates, Inc., Cultural Resources Report, Historic Overview for Beltsville Agricultural Research Center, December 1995, p. 13.

Work of the CCC Throughout the BARC Facility and Typical CCC Work with Water Systems

After his election as President in November 1932, and prior to taking office, Franklin Delano Roosevelt asked staff to come up with plans for a national program to employ unemployed men in projects in federally owned forests. By March 1933, he had signed into law a bill establishing the Emergency Conservation Work Program (later changed to the Civilian Conservation Corps) and by April 1933, the first camps were operational. Roosevelt emphasized the program's effect of conserving natural resources, and the "moral and spiritual value" of the work. By placing the "vast army of these unemployed out into healthful surroundings. We can eliminate to some extent at least the threat that enforced idleness brings to spiritual and moral stability."⁶

The first CCC camp (Camp A-1 Agriculture) was established at Beltsville in late October 1933. Five months later, in March 1934, Assistant Secretary Tugwell sent out an urgent plea for more camps, in particular to complete development and drainage work around the newly acquired land adjacent to the Beaver Dam Creek. The need for CCC labor at Beltsville became even more urgent in July 1935 when funds for Center-wide "general developments" (such as roads, utilities, etc.) were no longer available. By 1936, there were a total of four camps operating at the site.

For the most part, CCC enrollees at Beltsville worked at constructing roads, trails and bridges, erecting fences, laying drainage and sewage pipes and participated in extensive landscaping efforts at BARC. CCC workers also completed a number of buildings on the site. The most notable of these was the Log Lodge (which served as a recreation building by the camps and later became a cafeteria. The Lodge is currently the National Visitors Center for BARC.)

The CCC camps continued their work at BARC from 1933 until 1942, at varying degrees of camp strength. For example, in 1937 the four camps were reduced to three, although the overall number of enrollees remained about the same. Finally in 1942, all Civilian Conservation Corps were disbanded, as the United States had become a full participant in World War II.

It is important to note that the CCC (then the Emergency Conservation Work Program) was originally formed in the United States, in part, to protect and prepare lands for farming by way of clearing and drainage. To meet this end, the CCC disseminated numerous publications regarding land drainage. Many of these publications employed wells and pumps for the purpose of draining land of excess water. Certain wells were dug to improve irrigation efforts in the drought-plagued Midwest. Between 1917 and 1934, the Department of Agriculture maintained an updated bibliography devoted to this subject.⁷ However, the wells and pumps studied for this report, were apparently never used or intended for land drainage. Each well at BARC supplied potable water to the adjacent buildings which were

⁶U.S. House, Committee on Labor, Message from the President of the United States on Unemployment Relief, Doc. 6, 73rd Cong., 1st sess., March 21, 1933, p. 3.

⁷Record Group 114, Entry 170, Box 1, Records re: Safety and Engineering in CCC Camps, USDA, "Bibliography on Land Drainage" 1936.

Maryland Historical Trust
State Historic Sites Inventory Form
Continuation Sheet. Section 8: Significance
BARC Water System
Beltsville, Maryland

Section 8 Page 6

being erected at a rapid pace between 1933 and 1938.⁸

⁸See Robinson & Associates, Inc., Cultural Resources Report, Historic Overview for Beltsville Agricultural Research Center, December 1995, for more information regarding the building chronology.

9. Major Bibliographical References

Survey No. PG 61-23

SEE CONTINUATION SHEETS

10. Geographical Data

Verbal Boundary Description

The geographical area encompasses all well houses, water towers, a water treatment facility and an underground reservoir located at the BARC East Central Farm.

11. Form Prepared by

Regina Arlotto, Architectural Historian

Name/Title

Robinson & Associates, Inc.

April 9, 1996

Organization

Date

1909 O Street, N.W.

(202) 234-2333

Street & Number

Telephone

Washington

DC

20009

City or Town

State and Zip Code

Concurrence of State Preservation Officer

The Maryland Historic Sites Inventory was officially created by an Act of the Maryland Legislature to be found in the Annotated Code of Maryland, Article 41, Section 181 KA, 1974 supplement.

The survey and inventory are being prepared for information and record purposes only and do not constitute any infringement of individual property rights.

Return to: Maryland Historical Trust

DHCP/DHCD

100 Community Place

Crownsville, Maryland 21032-2023

(410) 514-7600

Bibliography

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Hazlehurst, J.N. *Towers and Tanks for Water-Works*, New York: John Wiley & Sons, 1901.

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National Archives Records Administration, Record Group 16, Office of the Secretary of Agriculture.

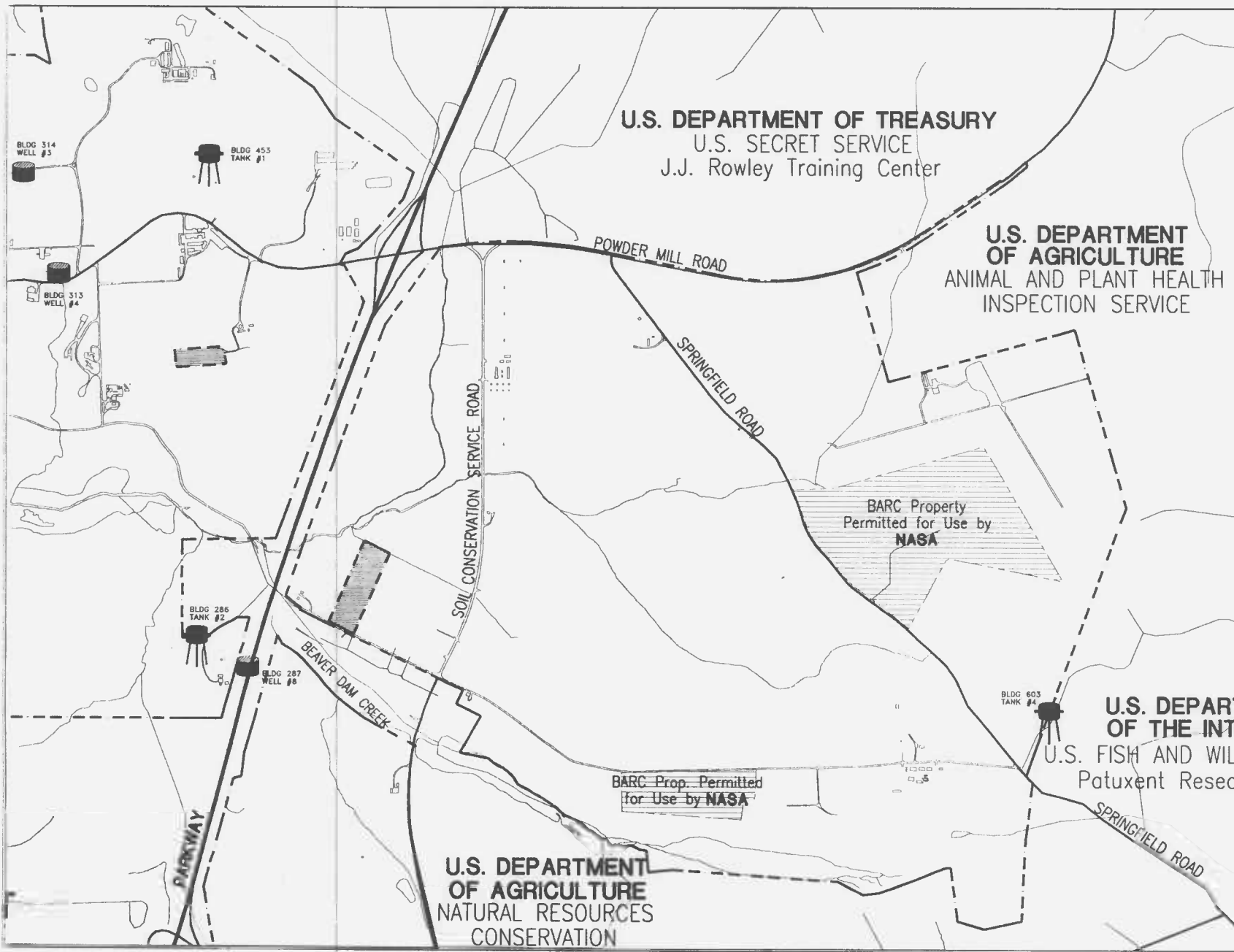
National Archives Records Administration, Record Group 54, Records of the Bureau of Plant Industry, Soils, and Agricultural Engineering.

National Archives Records Administration, Record Group 95, Forest Service Records.

National Archives Records Administration, Record Group 114, Records of the Soil Conservation Service.

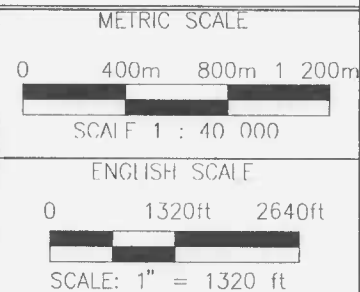
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Wiser, Vivian and Wayne D. Rasmussen. "Background for Plenty: A National Center for Agricultural Research," *Maryland Historical Magazine*, Vol. 61, No. 4 (December 1966).



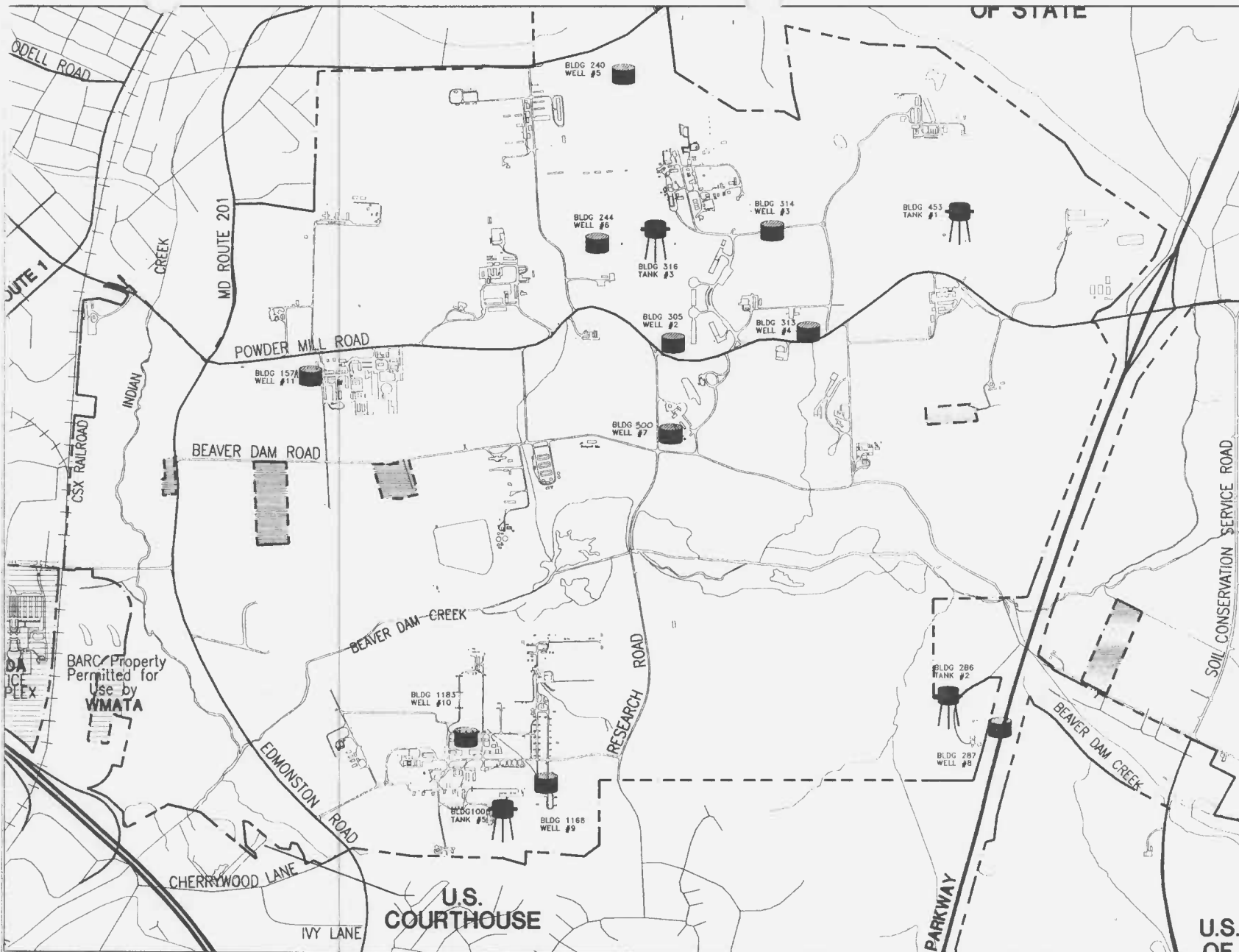
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Bethesda, MD 20817

- BARC BOUNDARY
- - - PERMITTED FOR USE BOUNDARY
- BARC BUILDING
- == ROAD
- BRANCH, CREEK, POND, STREAM
- WELLS
- WATER TANKS



DATE:
9-96

PG:61-23



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- BRANCH, CREEK, POND, STREAM
- WELLS
- ⊕ WATER TANKS

METRIC SCALE

0 400m 800m 1 200m

SCALE 1 : 40 000

ENGLISH SCALE

0 1320ft 2640ft

SCALE: 1" = 1320 ft



DATE: _

9-96

PG: 61-23

Maryland Historical Trust Inventory Form
Beltsville Agricultural Research Center, Water System
Beltsville, Maryland
Robinson & Associates, Inc.

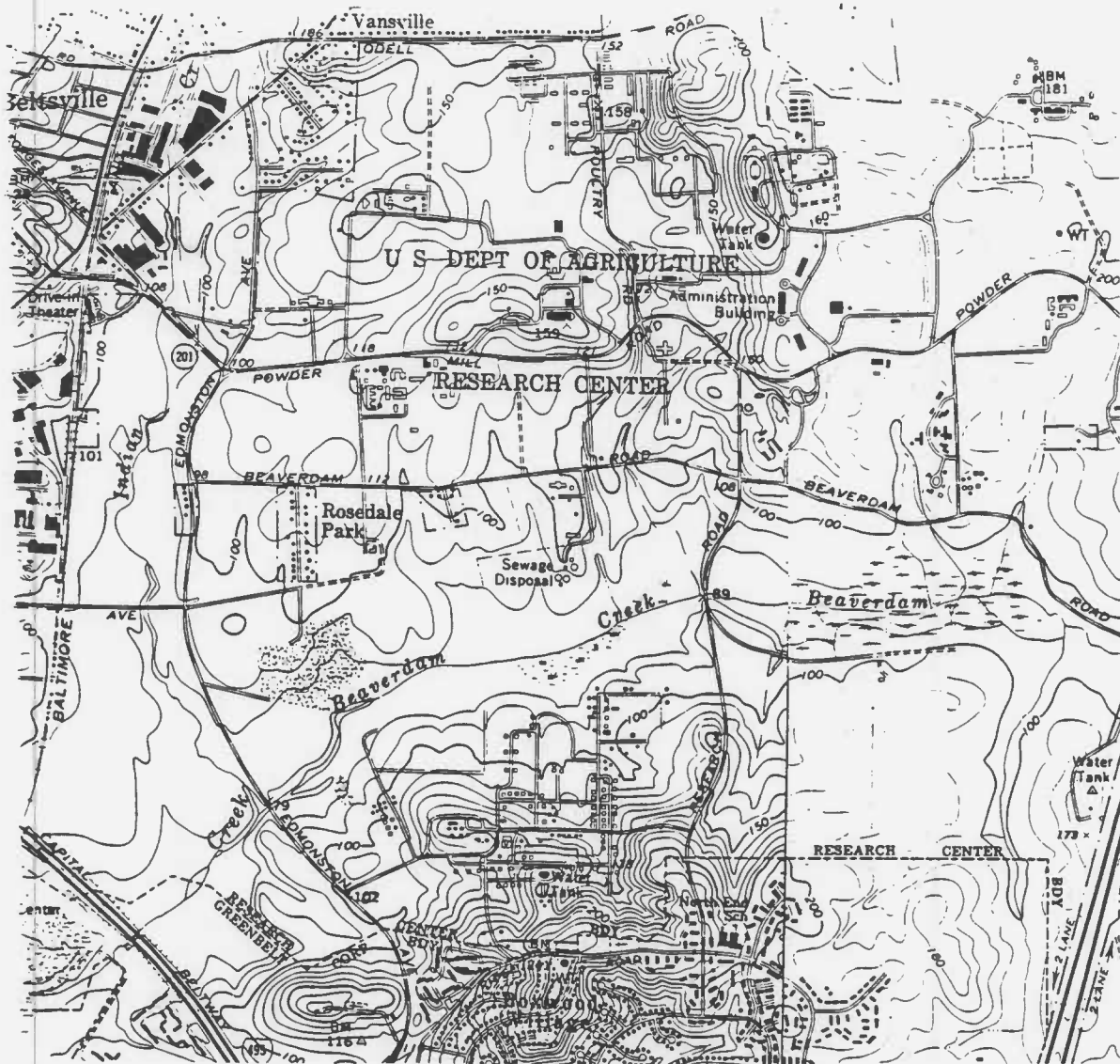
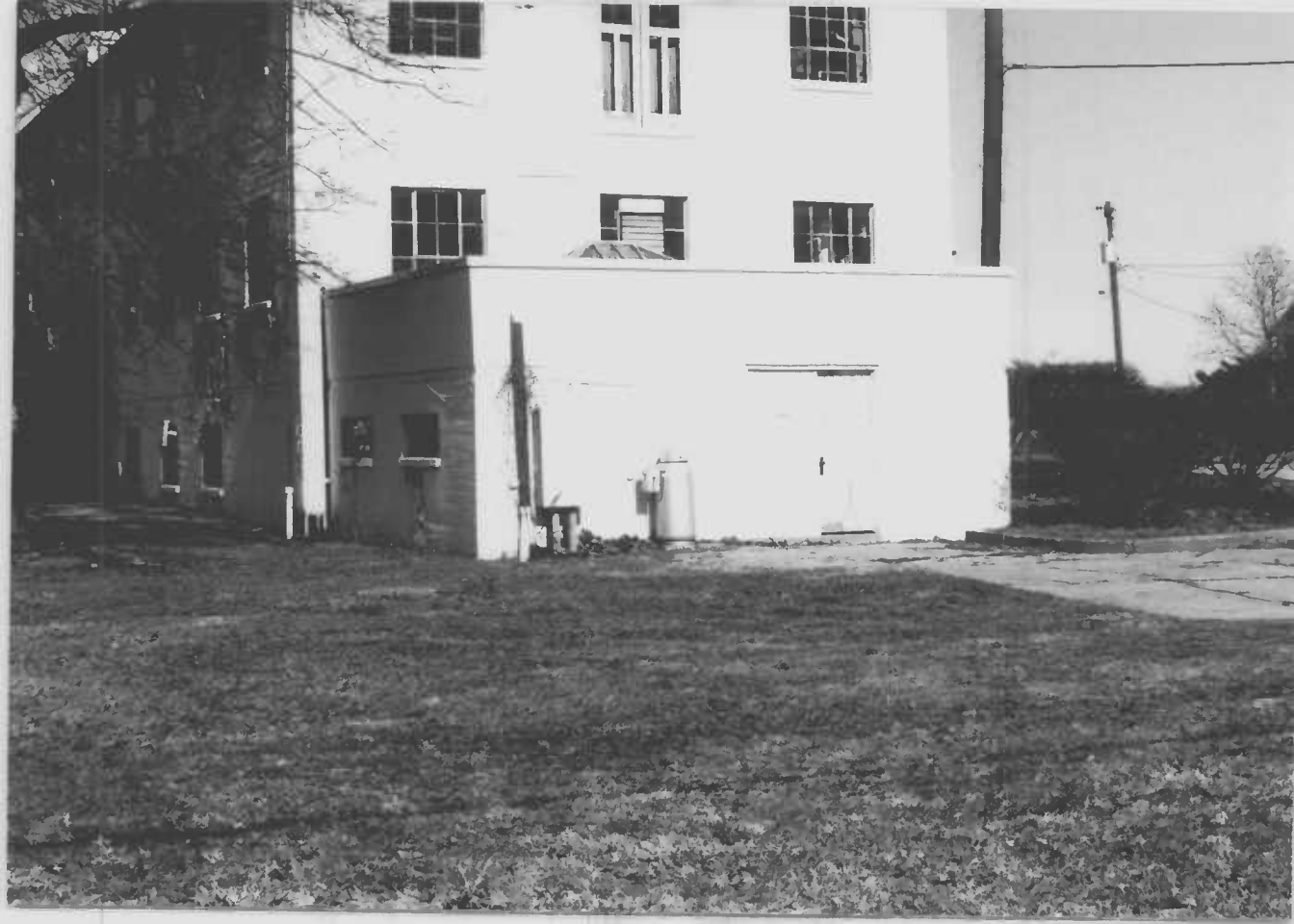


Figure 1.

USGS Map, ca. 1965
Beltsville Agricultural Research Center
Beltsville, Maryland



PG 61-23

WATER SYSTEM BARC EAST

PRINCE GEORGE, MARYLAND

CAROL HOOPER, FEBRUARY 1996

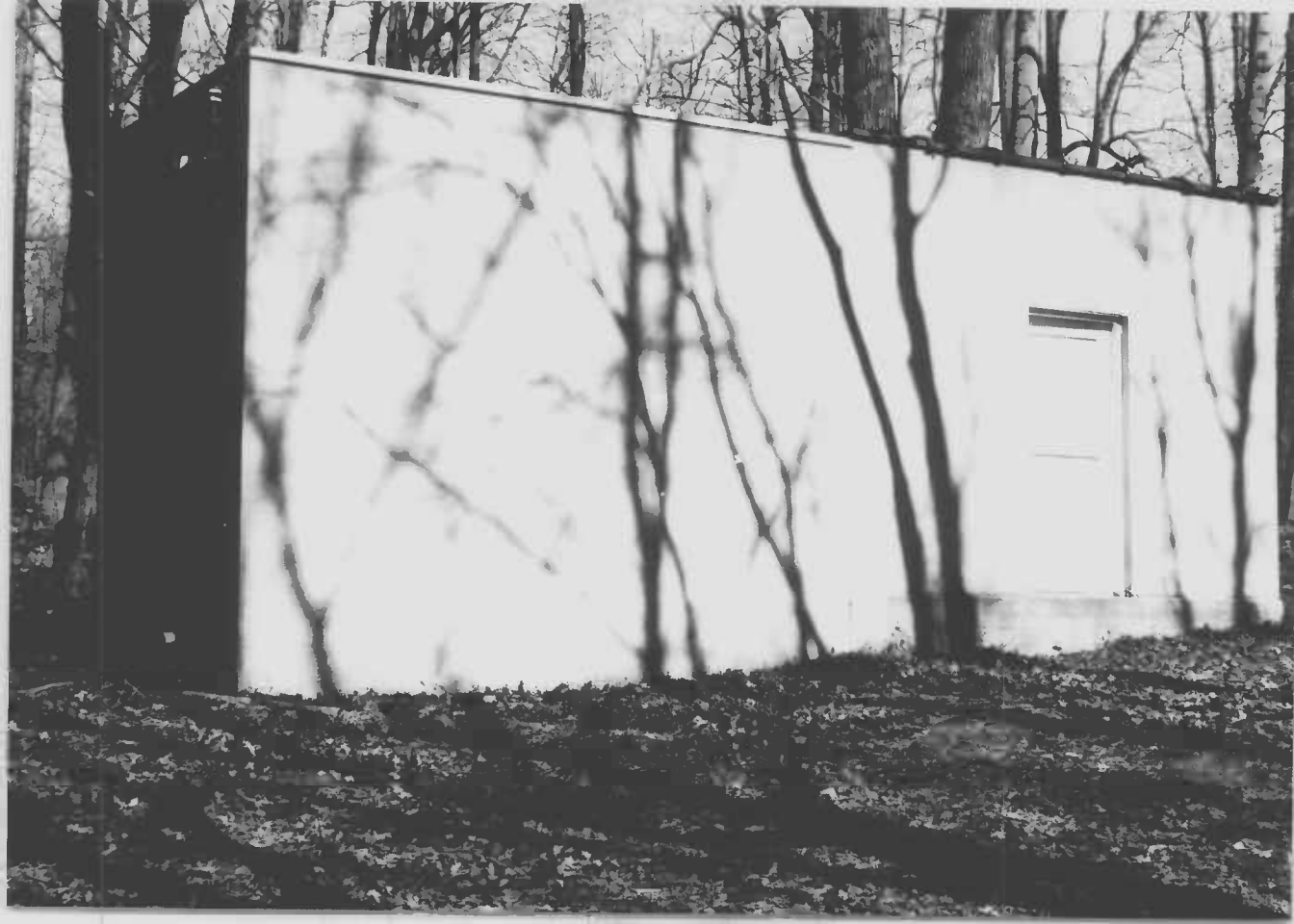
NEGATIVE AT MD SHPO

FRONT VIEW OF WELL HOUSE B 157 (WELL #11)

1/25

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PG 61-23
WATER SYSTEM BARC EAST
PRINCE GEORGE, MARYLAND
CAROL HOOPER, FEBRUARY
NEGATIVE AT MD SHPO
FRONT VIEW OF WELL HOUSE B 240
(WELL #5)

2/25

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240

PG 61-23

WATER SYSTEM BARC EAST

PRINCE GEORGE, MARYLAND

CAROL HUOPER, FEBRUARY 1996

NEGATIVE AT MD SHPO

REAR VIEW OF WELL HOUSE

~~TO~~ 240 (WELL #5)

3/25

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WATER SYSTEM BARC EAST
PRINCE GEORGE, MARYLAND

CAROL HOOPER, FEBRUARY 1996

NEGATIVE AT MD SHPO
FRONT VIEW OF WELL HOUSE

B 244 (WELL # 6)

4/25

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PG 61-23

WATER SYSTEM BARC EAST
PRINCE GEORGE, MARYLAND

CAROL HOOPER, FEBUARY 1996

NEGATIVE AT MD SHPO

REAR VIEW OF WELL HOUSE
B 244 (WELL #6)

5/25

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PG 61-23

WATER SYSTEM BARC EAST
PRINCE GEORGE, MARYLAND

CAROL HOOPER FEBRUARY 1996

NEGATIVE AT MD SHPO

SIDE VIEW OF WELL HOUSE B 244 (WELL #6)

6/25

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PG 61-23
WATER SYSTEM BARC EAST
PRINCE GEORGE, MARYLAND
CAROL HOOPER, FEBRUARY 1996
NEGATIVE AT MD SHPO
FRONT VIEW OF WELL HOUSE
B 287 (WELL # 8)
7/25

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PG 61-23

WATER SYSTEM BARC EAST
PRINCE GEORGE, MARYLAND

CAROL HOOPER, FEBRUARY 1996
NEGATIVE AT MD SHPO

REAR VIEW OF WELL HOUSE
B 287 (WELL #8)

8/25,

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PG 61-23

WATER SYSTEM BARC EAST
PRINCE GEORGE, MARYLAND
CAROL HOOPER, FEBRUARY 1996
NEGATIVE AT MD SHPO
FRONT VIEW OF WELL HOUSE
T3 305 (WELL #2)

9/25

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PG 61-23

WATER SYSTEM BARC EAST

PRINCE GEORGE, MARYLAND

CAROL HOOPER, FEBRUARY 1996

NEGATIVE AT MD SHFO

REAR VIEW OF WELL B 305 (WELL #2)

10/25

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PG 61-23

WATER SYSTEM BARC EAST
PRINCE GEORGE, MARYLAND
CAROL HOOPER, FEBRUARY 1996

NEGATIVE AT MD SHPD
FRONT VIEW OF WELL HOUSE B 313 (WELL #4)

11/
25

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PG 61-23

WATER SYSTEM BARC EAST
PRINCE GEORGE, MARYLAND
CAROL HOOPER, FEBRUARY 1996

NEGATIVE AT MD SHPO

REAR VIEW OF WELL HOUSE B 313 (WELL #4)

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WELL 3

PG 61-23

WATER SYSTEM BARC EAST
PRINCE GEORGE, MARYLAND

CAROL HOOPER, FEBRUARY 1996

NEGATIVE AT MD SHPO

FRONT FACADE OF WELL HOUSE B 3/4 (WELL #3)

13/25

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PG 61-23

WATER SYSTEM BARC EAST

PRINCE GEORGE, MARYLAND

CAROL HOOPER FEBRUARY 1996

NEGATIVE AT MD SHPO

REAR VIEW OF WELL HOUSE B 3/4 (WELL #3)

14/25

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PG 61-23
WATER SYSTEM BARC EAST
PRINCE GEORGE, MARYLAND
CAROL HOOPER FEBRUARY 1996
NEGATIVE AT MD SHPO
REAR VIEW OF WELL HOUSE B 1168 (WELL #9)

15/
25

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PG 61-23

WATER SYSTEM BARC EAST
PRINCE GEORGE, MARYLAND

CAROL HOOPER, FEBRUARY 1996
NEGATIVE AT MD SHPO

FRONT VIEW OF WELL HOUSE B 1183 (WELL #10)

16/25

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PG 61-23
WATER SYSTEM BARC EAST
PRINCE GEORGE, MARYLAND
CAROL HOOPER, FEBRUARY 1996
NEGATIVE AT MD SHPO
REAR AND SIDE VIEW OF WELL HOUSE
B 1183 (WELL # 10)

17/25

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PG 61-23
WATER SYSTEM BARC EAST
PRINCE GEORGE, MARYLAND
CAROL HOOPER, FEBRUARY 1996
NEGATIVE AT MD SHPO
ELEVATED RESERVOIR #1

95 111 N-44 N 2 20 75

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18/
25



PG 61-23

WATER SYSTEM BARC EAST

PRINCE GEORGE, MARYLAND

CAROL HOOPER FEBRUARY 1996

NEGATIVE AT MD SHPO

ELEVATED RESERVOIR #2

19/
2.5



PG 61-23

WATER SYSTEM BARC EAST

PRINCE GEORGE, MARYLAND

CAROL HOOPER, FEBRUARY 1996

NEGATIVE AT MD SHPO

ELEVATED RESERVOIR #3

20/25



PG 61-23

WATER SYSTEM BARC EAST
PRINCE GEORGE, MARYLAND
CAROL HOOPER, FEBRUARY 1996
NEGATIVE AT MD SHPO
ELEVATED RESERVOIR #4

21/
25



PG 61-23

WATER SYSTEM BARC EAST
PRINCE GEORGE, MARYLAND
CAROL HOOPER, FEBRUARY 1996
NEGATIVE AT MD SHPO
ELEVATED RESERVOIR #5

22/25



PG 61-23

WATER SYSTEM BARC EAST
PRINCE GEORGE, MARYLAND

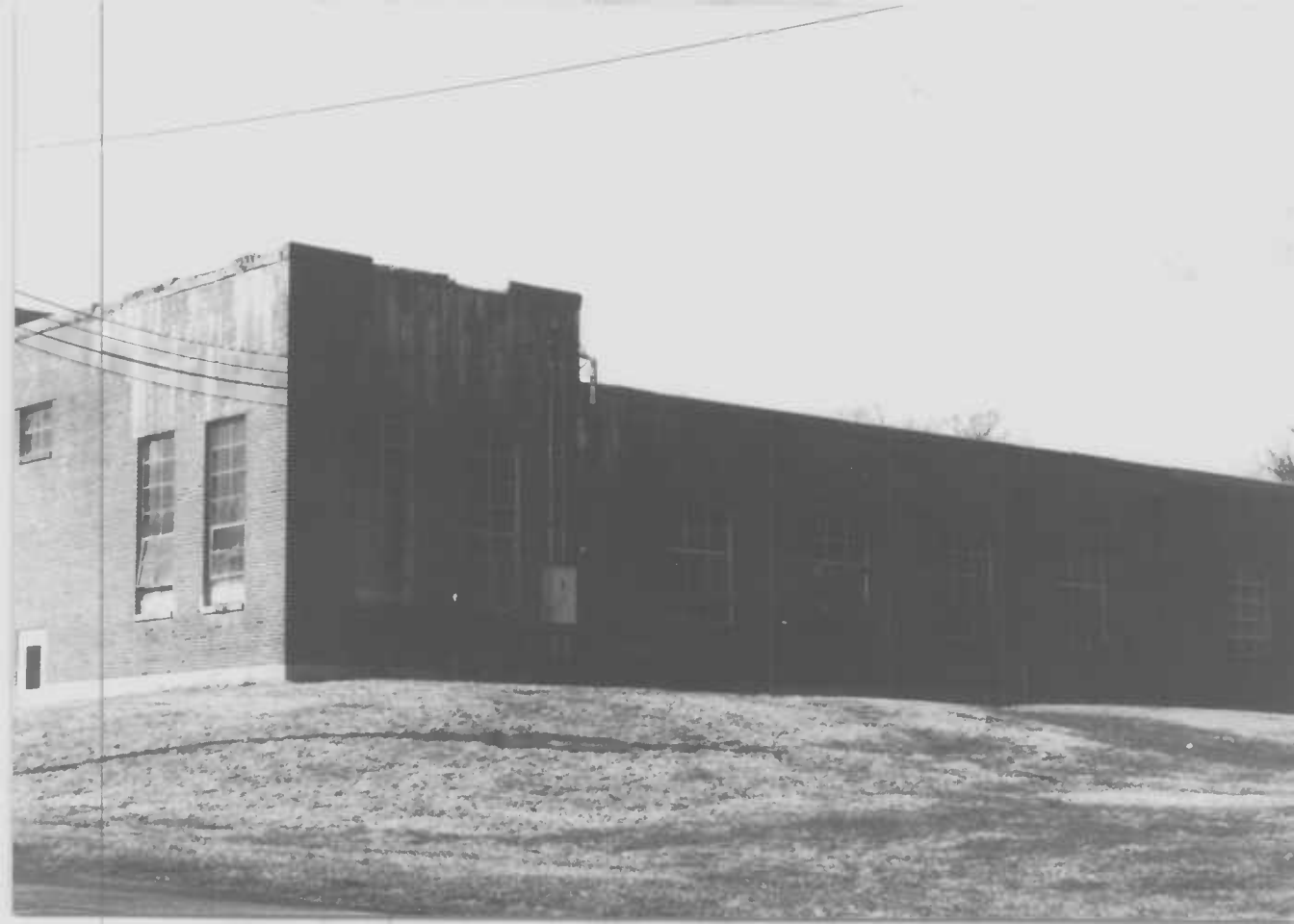
CAROL HOOPER, FEBRUARY 1996
NEGATIVE AT MD SHPO

PARTIAL VIEW OF SOUTH AND WEST
ELEVATIONS. BUILDING 310

23/25

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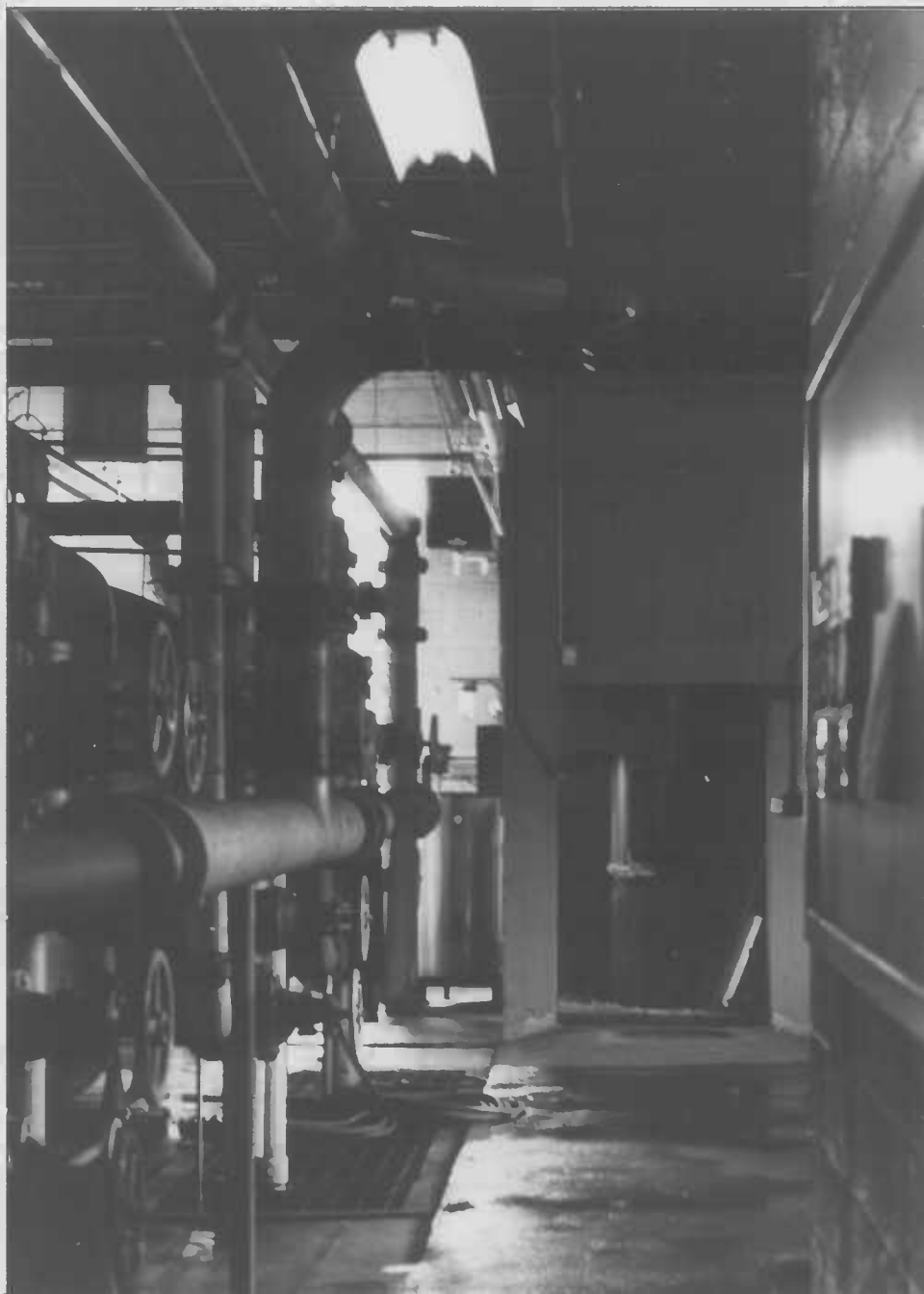
PG 61-23

WATER SYSTEM BARC EAST
PRINCE GEORGE, MARYLAND
CAROL HOOPER, FEBRUARY 1996
NEGATIVE AT MD SHPD
VIEW OF EAST ELEVATION, BUILDING 310

24/25

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PG 61-23
WATER SYSTEM BARC EAST
PRINCE GEORGE, MARYLAND
CAROL HOOPER, FEBRUARY 1996
NEGATIVE AT MD SHPO
INTERIOR VIEW, BUILDING 310

25/25

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